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INTRODUCTORY REMARKS*

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ONCE upon a time, before everything was all screwed up, senile dementia had a perfectly clear meaning. It meant a dotty oldster whose mental faculties and emotional stability were deteriorating at an accelerated pace. Once upon a time, organic brain syndrome also had a clear meaning. It meant a patient who was bonkers because of illness: meningitis, pneumonia, uremia, heart failure, too much medication, or too little food. One day I sat with a dozen or so other physicians in the office of a state official. The state was moving patients with senile dementia from state institutions to nursing homes, but by law demented individuals could not be cared for in nursing homes. The solution was simple, and I quote the state official from memory: "For God's sake don't call them demented, call them anything, call them organic brain, call them anything, but don't call them demented". So that was how I learned to call

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senile dementia organic brain syndrome.

The acronym OBS soon began to sound too obstetrical, so chronic brain syndrome was born, and its acronym, CBS, led to confusion with a television network. Other acronyms followed: SOB for senile organic brain, but calling a patient SOB might easily be confused with shortness of breath, so SOB was rightly modified to SOBS, senile organic brain syndrome. Other acronyms were OMS for organic mental syndrome, SBD for senile brain disease, SBS for senile brain syndrome, and we have Dr. Robert Katzman to thank for SDAT, senile dementia of the Alzheimer's type, but we are back to dementia, which would certainly disturb that state official.

The American Psychiatric Association even has a psychotic classification, namely, psychoses associated with organic brain syndromes and nonpsychotic organic brain syndromes. I am not making that up. It comes from the diagnostic and Statistical Manual II of the Committee on Nomenclature and Statistics of the American Psychiatric Association.[1] I am not sure what psychotic and nonpsychotic organic brain syndromes are, so I asked a sane psychiatrist, Dr. Richard Glavin, who replied by shrugging his shoulders. But in the past months the Diagnostic and Statistical Manual II has been revised upward and onward to III, and senile dementia is now called primary degenerative dementia.[2] As of the moment, however, use of that term is still quite rare, apart from its being difficult to say. In mid-November of 1981, at a two-day Columbia conference on Recent Advances in Dementia,[3] there were 24 speakers, and primary degenerative dementia was not mentioned even once.

So far, we have talked about giving a name to the way patients behave. In the final analysis, behavior is dependent upon structure, whether it be the structure of the atom or the universe. Only a few years ago, I doubt that anyone ever thought we could look inside the human head without opening it up. Yet today scans of the brain are commonplace. Computerized tomography is so commonplace that a recent issue of *Lancet*[4] contains the sentence "Polyscannery, like polypharmacy, is a highly infectious condition."

Reichel's recent text, *The Geriatric Patient*,[5] describes the CT scan of the normal brain and that of a patient with Alzheimer's disease. In Alzheimer's disease the brain is hollowed out inside and shrunken on the outside, with deepened sulci. Gado and Hughes at Washington University, St. Louis,[6] measured the degree to which the brain was shriveled and hollowed out. They simply measured the cross-section of the ventricles on

the brain scan and measured the depth of the sulci similarly. They found the demented brain to be shriveled and hollowed out, but compared with what? Compared with brain scans of patients under 65 years of age. When they compared demented brains with brains of patients not demented but of equivalent age, they found no difference in the degree of hydrocephalus or of cerebral atrophy. So Reichel really illustrated the difference between an old brain and a young brain, not the difference between dementia and sanity. When the brain shrivels and hollows out with old age, it simply shrivels like the rest of the patient, but a shriveled brain does not mean a loss of cognitive abilities, and it does not mean dementia. It means an old brain.

Professor John Lorber speaks of the CT scan of a hydrocephalic brain.[7] "When we did a brain scan we saw that instead of the normal 4.5 centimeter thickness of brain tissue between the ventricles and the cortical surface, there was just a thin layer of mantle measuring a millimeter or so. His cranium is filled with cerebrospinal fluid". Can you imagine being alive with a brain 1/450th of normal? That's no brain at all. But there is more. The brain scan with a 1 millimeter rim of cerebrum was that of a young student at Sheffield University who had an IQ of 126, gained a first class honors degree in mathematics, and was socially completely normal. The student's physician at the university noticed that the youth had a slightly larger than normal head and so referred him to Dr. Lorber, simply out of interest. Can you imagine an IQ of 126 and no brain? That does not fit my idea of the way this universe works. There is more in heaven and earth than man ever dreamed of. I hope that I have made the point that the investigation of dementia is the most exciting thing on the market today, and, as I immoderately indicated, we haven't even decided yet what to call what we are studying. There are all those buzz words, positron emission tomography, choline acetyltransferase, neuropeptides, physostigmine, aluminum, vasopressin, plaques and tangles, nucleus basalis of Meynert, alaproclate. And that is what we have to look forward to this afternoon.

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